

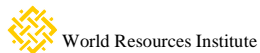
## **C. The Next Bottom Line: Making Sustainable Development Tangible**

Presentation by Robert Day, World Resources Institute



Making  
Sustainable Development  
Tangible

**Robert Day**



## **World Resources Institute(WRI)**

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- WRI: Washington, DC based environmental policy research organization.

- WRI's SPLASH project works directly with companies to affect private choices and promote sustainable development.

*DuPont, Monsanto, Weyerhaeuser, GM, BP, and others.*

- SPLASH is in the process of expanding its partnerships.

- **“The Next Bottom Line: Making Sustainable Development Tangible”** released at WRI's Sustainable Enterprise Summit, Washington DC, October 21-22 '98.

# **The Next Bottom Line: Overview**

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- A Business Agenda for Sustainable Development
- Four Business Drivers
- Driving Innovation
- Getting Started

## **A Business Agenda for Sustainable Development**

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*Every company we work with is wrestling with the concept of “sustainable development” and trying to make it relevant. In the end, real change will not occur unless it is profitable.*

Winning opportunities for business leadership in sustainable development:

- **Replacing material with information**
- **Valuing ecosystems**
- **Connecting with the community**

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## **A Business Agenda for Sustainable Development**

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### **Replacing Material with Information:**

*Although substantial gains have been made in energy and resource efficiency, the global economy is still very inefficient at converting material into products and services.*

Even in the most modern and efficient industrial economies, the annual material requirements per person total between 45,000 and 85,000 kilograms -- the weekly equivalent of 300 shopping bags full of stuff.

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## **A Business Agenda for Sustainable Development**

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### **Replacing Material with Information:**

The key to resource productivity lies in making creative use of knowledge to drive resource use down and the value to a customer up.

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#### Old

Volume Intensity  
Volume Output  
Capital Invested  
Material Throughput  
Virgin Material and Energy  
Focus on Product

#### New

Knowledge Intensity  
Value per Volume Output  
Value per Capital Invested  
Material Per Customer Served  
Recovered Material and Energy  
Focus on Function

## **A Business Agenda for Sustainable Development**

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### **Replacing Material with Information:**

*Examples:*

- *DuPont-Ford UK*: Customer relationship is changed to take advantage of DuPont's knowledge of automotive paints.
  - ~8% annual material savings / year
  - DuPont's market share grows from 25% to 75%
- *"Electric paper"*: Xerox PARC is developing a bi-stable display that will store images without needing a power source, work like newsprint, and be reusable up to a million times.

## **A Business Agenda for Sustainable Development**

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### **Valuing Ecosystems:**

*Virtually none of the services provided to our economy by ecosystems are valued (ex: clean water, clean air, climate).*

The economic value of ecosystem services was recently estimated at about \$33 trillion per year.\*

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## **A Business Agenda for Sustainable Development**

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### **Valuing Ecosystems:**

*Some opportunities:*

- Offsetting degradation from other operations  
ex: nonpoint pollution trading; Weyerhaeuser
- Using nature to reduce operational costs  
ex: Ethel M. Chocolates' "Living Machine"; Wal-Mart
- Creating new business around restoration  
ex: carbon sequestration; watershed protection

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## **A Business Agenda for Sustainable Development**

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### **Connecting with the Community:**

*By engaging their various communities, companies can learn specific opportunities to enhance both human lives and their bottom line.*

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- Access to basic education for everyone in the world would cost an estimated \$6 billion annually.
  - Universal access to water and sanitation would cost \$12 billion annually.
  - Basic health and nutrition for all would cost \$13 billion annually.
  - Americans spend \$8 billion annually on cosmetics.



## **A Business Agenda for Sustainable Development**

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### **Connecting with the Community:**

*By learning with their communities, companies can reduce their risk from “hot button” issues and/or open new business opportunities.*

*Some examples:*

- |                         |                                 |
|-------------------------|---------------------------------|
| • Local communities     | <i>S.C. manufacturing plant</i> |
| • Regions and countries | <i>AES</i>                      |
| • Employees             | <i>Herman Miller</i>            |
| • Investors             | <i>Baxter International</i>     |
| • Competitors           | <i>DuPont Films</i>             |
| • NGOs                  | <i>WRI -- SCSB</i>              |

## Four Business Drivers

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### The WRI Business Value Model

Business Value:	Right to Operate	Cost Reduction	Customer loyalty	New Markets
Action:	- Waste Treatment - Compliance	- Pollution Prevention - Yield Improvement	- Design for Environment - Service Intensity	- Environmental Restoration - Social Reconstruction - Step Change - Business Redefinition
Organizational Lead:	Public Affairs / General Counsel	Manufacturing / Operations	R&D / Design Engineering / Marketing	Strategic Planning / Marketing

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## Four Business Drivers

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### **Right to Operate:**

*The first and most basic reason to protect the environment and worker health and safety is to comply with legal requirements or social pressure.*

Businesses with solid reputations also:

- Recruit the best people
- Enjoy privileged access to new markets
- Generate greater trust from governments and civic leaders.

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# Four Business Drivers

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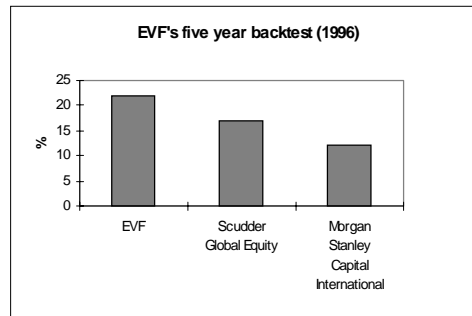
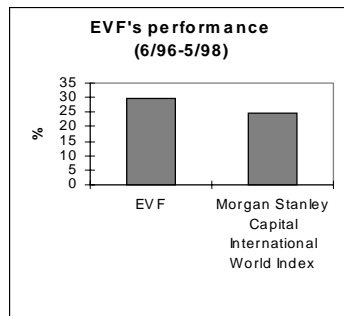
## **Cost Reduction:**

- Avoidance of waste treatment and disposal
- Raw material reductions
- Process quality improvements

# Four Business Drivers

## Cost Reduction:

*“Eco-efficiency” funds, such as the Scudder-Storebrand Environmental Value Fund (EVF) invest in best in class companies across global industries, and early results are encouraging.*



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## Four Business Drivers

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### **Customer Loyalty:**

*When a business builds environmental benefit into products, it creates direct value to the customer.*

- The benefit reduces the customer's environmental burden.
- The search for the environmental benefit often yields enhancements to:
  - Product performance
  - Cost
  - Quality
  - Safety
  - Serviceability

## Four Business Drivers

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### **Customer Loyalty:**

*Successful approaches, in ascending order of difficulty and level of investment needed:*

- |                               |                                |
|-------------------------------|--------------------------------|
| 1. Service Add-ons            | <i>DuPont Sulphur</i>          |
| 2. Product Modification       | <i>Kodak Single-Use Camera</i> |
| 3. From Product to Offering   | <i>BP Solar</i>                |
| 4. From Selling to Leasing    | <i>Xerox ARM</i>               |
| 5. Moving Toward the Customer | <i>DuPont-Ford UK</i>          |

# Four Business Drivers

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## **New Markets:**

*What will be “the next big thing?”*

- Sustainable Development can be used as a framework through which to identify “*market discontinuities*” -- conflicts between major trends.
- Companies can use this knowledge to develop new markets for entirely different streams of technologies and services that substitute knowledge for material, restore ecosystems, and connect people.

# Getting Started

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## **Six Key Organizational Success Factors**

- Leadership
- External Engagement
- Measures
- Strategic Intent
- Shortening the Value Chain
- Adaptive Culture

# Getting Started

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## **Leadership: Commitment Across the Company**

Building a business commitment to sustainable development requires

- new technology, products and services;
- changes in value and behavior; and
- new relationships with customers and suppliers.

Such a commitment must involve leadership at all levels and in all functions for meaningful change to occur.

- **Most important are:** environment, health and safety staff  
marketing  
CEO and CFO  
operations  
business unit managers

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# Getting Started

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## **External Engagement:** **Learning from Different Perspectives**

Companies that aspire to sustainable development recognize that they cannot answer many essential questions without the help of outsiders.

Template for getting connected:

- Develop the business case for purposeful connections.
- Inventory and evaluate existing associations and partnerships.
- Identify important gaps, vulnerabilities, and opportunities.
- Evaluate potential partners, associations, and memberships.
- Establish a small number of associations or partnerships.

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# Getting Started

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## **Measures: Making Better Informed Decisions**

*Measures are critical to monitor environmental and social progress, to engage senior management, and for reporting.*

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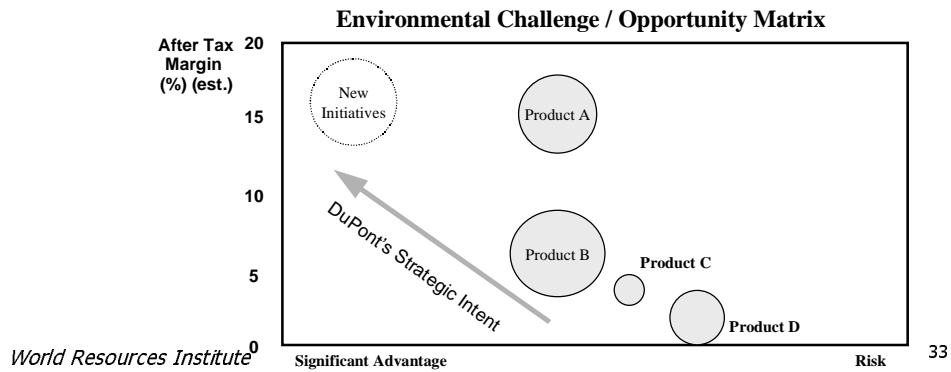
### **Four Key Categories of Environmental Performance Measurement:**

- Materials Use
- Energy Consumption
- Nonproduct Output
- Pollutant Releases

# Getting Started

## **Strategic Intent: From Stewardship to Strategy**

*Segregated environmental programs cannot fundamentally alter the environmental or social footprint of a company. Environmental performance must become a key part of strategic planning.*



# Getting Started

## Strategic Intent: Three Schools of Management

	<u>"Harangue"</u>	<u>"Tools"</u>	<u>"Integration"</u>
Characteristics	Exhortation, lots of talk about "environment" and "sustainability."	Introduction of specific tools (eg: LCA, DfE)	Serious review of all elements of the organization
Rationale	"Everybody's doing it," or "We're already o.k."	Customers insist, or competitors loom	Systematic efforts to improve earnings
Responsibility	Unchanged	Lower-level management	Shared responsibility
Structural Changes	None	Incremental changes	Dramatic changes
Reaction	"The flavor of the month"	"Nice idea, too bad upper management is not serious about it."	"At last, we've got a chance to do it right."

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# Getting Started

## Shortening the Value Chain: Efficiency and Revenue Growth

*A value chain is most efficient when there are few transactions between producers and their final customers.*

- Shortening the value chain can help capture the customer interface.
- Companies can use information about customer needs to design greater efficiency into the system and capture savings.

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# Getting Started

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## **Adaptive Culture:**

### **Allowing People to Give Their Best**

*Systems thinking, shared visions and team learning spur innovation*

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Lessons from the Adaptive Culture movement:

1. Work that is challenging and complex inspires employees to maintain enthusiasm and productivity.
2. Framing challenges as outcomes, not tasks, allows employees to be more goal-oriented and driven.
3. The values-driven (and open) workplace is more productive than one run purely for financial return.

# Getting Started

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## **Benchmarking Progress:**

*Some questions to ask...*

### **Leadership**

Do stars in your company lend credence to sustainable development?  
How many senior leaders push this issue?  
Are leaders from across the company deeply involved in the effort?

### **External Engagement**

What NGO partnerships are you involved in?  
What new products have emerged from external engagement?

### **Measurement**

What do you measure?  
Who sees it?  
Who uses it?

# Getting Started

## **Benchmarking Progress:**

*More questions...*

### **Strategic Intent**

Is Sustainable Development a part of any business planning process?

Does the business value of environmental and social investments get measured?

How would you characterize your company's approach: Harangue, Tools, or Integration?

### **Shortening the Value Chain**

Do you engage customers and suppliers? Competitors?

Are you bringing yourself closer to the customer in any business?

### **Adaptive Culture**

What are you doing to involve employees at all levels in Sustainable Development?

Do you have an empowered, risk-taking culture?

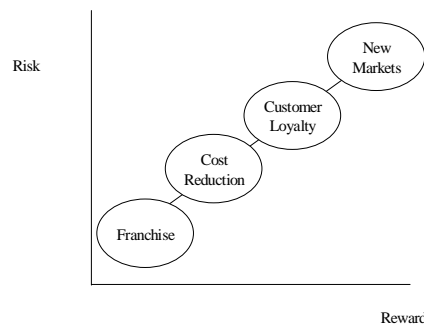
Is Sustainable Development a factor in recruitment?

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# Driving Innovation

## **"If anyone can do it, why are so few actually pursuing new product and market development?":**



*Although the rewards for customer loyalty and new markets directed activities can be great, the risk is also significant.*

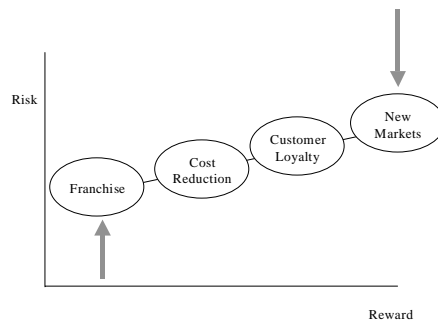
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# Driving Innovation

## **"So why should we begin pursuing these opportunities now?":**

- *Resource constraints are making franchise protection more complex and risky. (ex: Shell -- Brent Spar, Nigeria)*
- *Market discontinuities are becoming clearer, lowering long-term risk for SD market and product development.*



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# Driving Innovation

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## **More efficient “business as usual” will not suffice:**

- Total material, energy, and natural resource use continues to rise, even in the face of tremendous efficiency gains.
- Process efficiency alone will never achieve sustainable development. Without technological change, process efficiency simply gets us where we are going faster.

*“Energy conservation lowers the real price of energy and thus induces an energy demand expansion.”*

*- David Pearce, Britain’s leading environmental economist*



# Driving Innovation

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## **The innovation imperative:**

- From 1975 to 1995, 60% of Fortune 500 companies disappeared from the list.
- Research by Kim and Mauborgne (Insead):

Out of more than 100 new business launches:

86% were “me too” launches or incremental improvements.

The remaining 14% (which created new markets) generated:

- 38% of all revenues
- 61% of profits